

## THE DISTRIBUTION OF THE INTRODUCED DUNG BEETLE *ONITIS ALEXIS* KLUG (COLEOPTERA: SCARABAEIDAE) IN THE NORTHERN TERRITORY

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### Abstract

*Onitis alexis* was first released in the Northern Territory in 1973 and last recovered in 1985 in Kakadu National Park some distance from the nearest release site and nine years after the last release. High buffalo numbers in the park have probably been responsible for its establishment and spread and the current buffalo eradication program may well see *O. alexis* disappear from the park.

### Observations and discussion

The history and rationale of Australia's dung beetle program is well documented (Waterhouse, 1974). In the Northern Territory 12 species of Scarabaeinae and two Histeridae have been released since 1969.

*Onitis alexis*, a southern African species, was first released in the Northern Territory at the Berrimah Agricultural Research Centre, near Darwin. It was subsequently released at 21 sites and recovered at nine sites, 5 of which were not release sites (Fig. 1).

The most recent record is from Barramundi Gorge, Kakadu National Park, A.M.G. reference: 5471-418309, on the 4th August 1985, when a 1 kg brood mass was recovered 30 cm below a 4-6 L buffalo pad on sandy soil in a riverine forest. The brood mass contained 3rd instar larvae which had a full gut and had not yet formed a pupal chamber. The brood mass were kept in moist soil at 26°C and 15 adults emerged between the 8th and 15th December 1985.

This recovery comes some 9 years after the last release in the area and is more than 100 km from the nearest release site (Fig. 1). This suggests that *O. alexis* is well established in this region of the Northern Territory. In Australia, *O. alexis* is dependent on bovine dung for its survival and spread. It is probable that the presence of high numbers of the Asian water buffalo *Bubalis bubalis* (L.) in this area in recent years have been largely responsible for its persistence.

It is now the policy of the Australian National Parks and Wildlife Service to eradicate buffalo and cattle from Kakadu National Park (Anon. 1980). While it is unlikely that complete eradication will be achieved, buffalo numbers and distribution will be severely reduced, perhaps to levels that would not support a population of *O. alexis* and we may see this species disappear from the region.

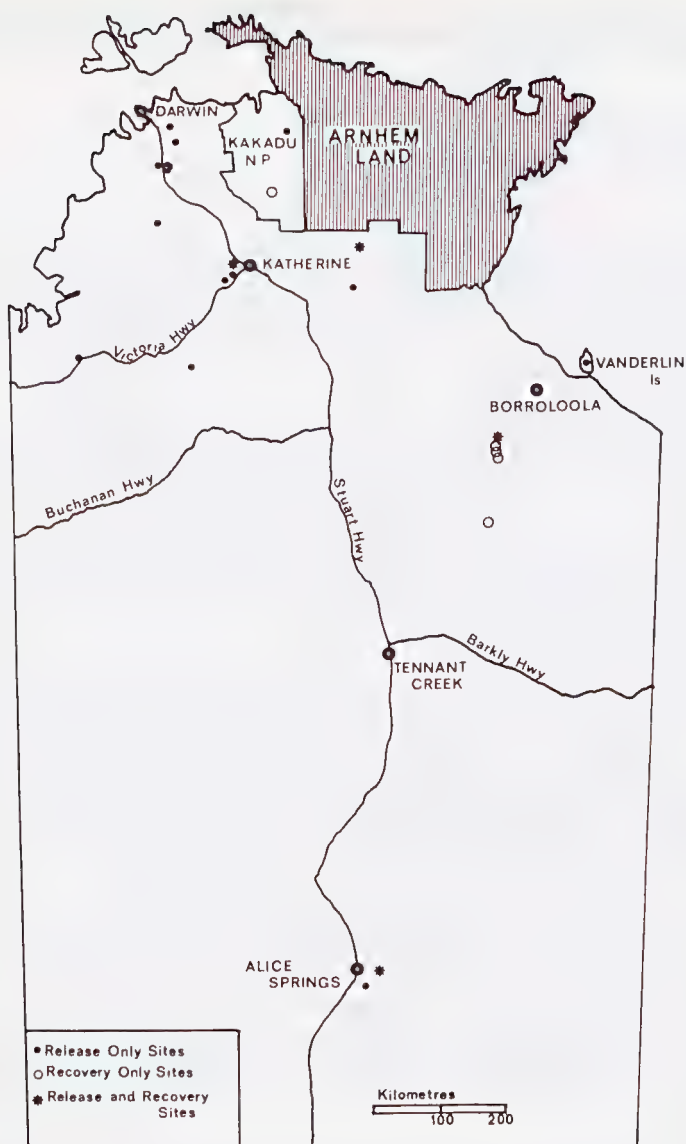


Fig. 1. Distribution of *Onitis alexis* in the Northern Territory.

### References

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- WATERHOUSE, D.F. 1974. The biological control of dung. *Scientific American* 230: 101-108.